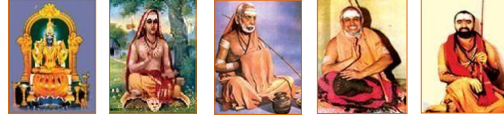


With the blessings of Their Holinesses



**SRI CHANDRASEKHARENDRA SARASWATHI  
VISWA MAHAVIDYALAYA  
SCSVMV**

(Deemed to be University U/S 3 of UGC Act 1956)  
Accredited with “A” Grade by NAAC

**DEPARTMENT OF ELECTRONICS AND  
INSTRUMENTATION ENGINEERING**



**INDUSTRIAL VISIT REPORT  
Hatsun Agro Product Limited**

**Visit**

**On**

**08.09.2023**



## **EIE dept. Industrial Visit Report :Hatsun Agro Product Limited**

### **Sub : Submission of Detailed Report – Industrial Visit**

On September 8th, 2023, students majoring in Mechatronics Engineering and Electronics and Communication Engineering (ECE) at Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya (SCSVMV) went on a field trip to Hatsun Agro Product Limited in Kanchipuram. Hatsun Agro Product Limited (HAP) specializes in manufacturing and selling various dairy products such as milk, curd, ice cream, dairy whitener, skimmed milk powder, ghee, paneer, and more. The visit offered students valuable insights into the processes involved in milk procurement, processing, distribution, logistics, and animal husbandry. A representative from Hatsun Agro Product Limited began the visit with an introductory speech, providing detailed information about the plant's operations.

#### **Operations on HAP**

**Milk Procurement:** Hatsun operates more than 1,100 rural milk procurement routes. These routes have a regular route plan with the timing to pick up milk cans from each HMB/village in the morning and evening. All farmers have to pour the milk before the milk truck reaches their HMB. Once all the farmers have poured their milk, it is collected in cans and loaded onto the trucks on the time fixed for picking up the cans at the HMB. After collecting milk from all the allotted HMBs, the milk procurement vehicle arrives at the Hatsun Milk Chilling Center (CC). At the CC, the milk is tested again for more parameters. Once the milk is tested organoleptically, it is weighed. Samples are taken for more detailed tests and pumped to the chilling unit. The samples are taken for detailed testing. Once all the vehicles have arrived and all the milk is transferred for chilling, the samples are taken for testing. After the tests are completed and the suitability of the entire CCs milk is confirmed to meet Hatsun's strict quality norms, the milk is loaded into a milk tanker and sent to the dairy. At the dairy the milk is put through more tests before taking it up for further processing.

**Processing:** After procurement, the milk is taken for the all-important quality testing and weight checks. HAP is the world's first dairy company to develop and use thermal battery-based technology in its BMCs, for chilling milk immediately after procurement. It has worked extensively with a Boston-based US company in this regard. The bulk milk coolers run on thermal batteries which store electricity whenever available from the grid. This helps in chilling the milk right at source, even in rural areas with irregular power supply.

The company employs at least two types of testing: Gerber Method and Eko Milk Analyzers. The milk is then subjected to pasteurization, homogenization and bacteria clarification — all performed by a staff of professionals with the single-minded goal of adhering to the highest standards of quality.

HAP sources over 80% of its entire industrial power requirement from renewable sources like solar power and windmills. The Ekomilk analysers, electronic weighing scales, display, stirrer,



scanner, tablet and printers in all HMBs operate entirely on solar powered batteries. None of the company's HMBs has or requires any diesel generator backup for collecting milk, thereby avoiding environmental and sound pollution. Every HMB building has a rooftop solar panel and battery that can store 900 watts of power.

### **Distribution & Logistics:**

We have an efficient and large cold-chain network to ensure that our consumers get fresh milk every day. Our puff-insulated trucks travel around 5,00,000 km on a day-to-day basis, across Tamil Nadu, Karnataka, Andhra Pradesh, Telangana, Maharashtra, Kerala, Goa, Gujarat, Chhattisgarh and Orissa.

We also have a strong logistics and distribution network for our products, with over 3300+ Hap daily Outlets.

### **Animal Husbandry:**

The company employs a professional Animal Husbandry team. The addition of over 100 highly qualified experts promises a spike in productivity and profitability for dairy farmers, not to mention, an increase in the quality of the milk.

HAP promotes Ethno veterinary Medicine (EVM), commonly known as traditional animal healthcare, a cost effective and accessible method for treating cows, which can easily be carried out by farmers themselves. HAP undertakes about 4-5 lakh artificial insemination every year. HAP has tagged more than 6 lakh cows so far to extend veterinary services.

For farmers who do not have access to reliable irrigation, Hatsun Agro Product Limited is initiating a trial on the feasibility of producing and feeding silage to the cattle. With an aim to maximize farmers' profits, the animal husbandry team works closely with the cattle feed team to provide them with a complete nutrition package of forages and concentrates.

### **Technological Insights:**

The students had the opportunity to observe the process of milk procurement, Processing, Distribution and Logistics and Animal Husbandry



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**Department of Electronics and Instrumentation Engineering**

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3	Dr S Vijayaraghavan	AP & EIE
4	Mr K Vinayagamoorthy	Lab instructor & EIE

**Student Details**

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3	P AnanthaPadmanaban	III	11219H001
4	C S PhaniChandra	III	11219H002
5	D DattaSai	III	11219H003
6	S SShravani Voleti	III	11219H004
7	N T HardikSrivatsa	II	11229H001
8	G Sudan	II	11229H002
9	KoushikBharadwaj V	II	11229H003
10	Bhaskara Veda Vishnu Datta	IV	11209C001
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12	KanisettyMounika	IV	11209C004
13	VemugantiSaiCharan	IV	11209C006
14	SivaneshS	IV	11209C007
15	Balachander .A	IV	11209C008
16	PanchagnulaDakshina Murthy	IV	11209C009
17	SSSM DattatreyaSarmaGhatam	III	11219C002
18	Saiprabha C Y	III	11219C004
19	VutukuruSreeHaripriya	III	11219C005
20	ChavaliSriVaishnavi	III	11219C006
21	Sangati Sandeep Reddy	III	11219C007
22	ChandragiriLahari	II	11229C001
23	Kolusu Naga Manikanta	II	11229C002
24	PalukuriSaiPratap	II	11229C003
25	Peesapati Sri VenkataKowmudi	II	11229C004
26	Seshaprasan M	II	11229C005
27	Sivavarshini S	II	11229C006
28	SonaliKumari	II	11229C007
29	P Narendrababu	II	11229C009
30	Roshini G	II	11229C010
31	Sarika	II	11229C011
32	SaiEswar	II	11229C012



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### Industrial Visit Photos



### Conclusion

The industrial visit to Hatsun Agro Product Limited proved to be an enriching experience for the students of ECE and Mechatronics Engineering at SCSVMV. They gained valuable insights into the dairy industry's operations, from milk procurement to distribution, and learned about the importance of efficient processes in ensuring quality products. The visit provided a practical understanding of various aspects of the dairy industry, contributing to the students' academic and professional development.